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EXAMINER

KIM, STEVEN S

ART UNIT

PAPER NUMBER

3685

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/563,496	<b>Applicant(s)</b> SUN, PENG	
	<b>Examiner</b> STEVEN KIM	<b>Art Unit</b> 3685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 9-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/9/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This office action is in response to the Applicant's reply dated April 8, 2009. Claims 1-12 are pending. Claim 9 has been amended. Claims 9-10 are withdrawn.

#### ***Restriction/Election Acknowledgement***

2. The Applicant's election on claims 1-8 and 11-12 with traverse in the reply on April 8, 2009 is acknowledged. Claims 10-11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group(s).
3. In response to Applicant's traverse of the restriction, the inventions, amendments, are distinct each from the other because of the following reasons:  
Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination I has separate utility such as a method of charging for usage while subcombination II has a separate utility such as a method of computer network managing including regulation and apparatus state. See MPEP § 806.05(d). Accordingly, claims 1-8 and 11-12 drawn to a method of time charging, e.g. usage charge, classified in class 705, subclass 52 while claims 9-10 drawn to method of network managing, e.g. monitoring usage and regulating, classified in class 709, subclass 223.
4. For the reason above, the Examiner maintains the restriction.

***Priority***

5. Acknowledgement is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in the instant application, filed on 1/03/2009.

***Claim Objections***

6. Claims 1-8 and 11-12 are objected to because of the following informalities: The claims recite broadband access server and access server interchangeably (see preamble, step a) and step b in claim 1). The Applicant is advised to use the same terminology throughout the claims. Appropriate correction is required.

***Specification***

7. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

***Admitted Prior Art***

8. According to the MPEP (608.01(c)(2)), Applicant's Background of the Invention describes to the extend practical the state of the prior art known to the Applicant.

Therefore, in light of Applicant's "Background" the following is considered as admitted prior art:

- Conventional detection methods of the IDLE state are in such way that a timer is directly configured such that data flow of a user is detected periodically at each interval so as to decide whether an increment between the user's data flow and the last check point is less than a threshold; that if the increment is not greater than the threshold, the user is considered offline, otherwise the user is considered online or downloading;
- Disclosure where the time interval for IDLE detection is about 5 minutes and techniques of reducing of the time interval for efficiency and better accuracy.

***Claim Rejections - 35 USC § 101***

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 1-8 and 11-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Based on Supreme Court precedent (See also *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)) and recent Federal Circuit decisions, a §101

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process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. In addition, the tie to a particular apparatus, for example, cannot be mere extra-solution activity. See *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

11. An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps.

12. To meet prong (1), the method step should positively recite the other statutory class (the thing or product) to which it is tied. This may be accomplished by having the claim positively recite the machine that accomplishes the method steps. Alternatively or to meet prong (2), the method step should positively recite identifying the material that is being changed to a different state or positively recite the subject matter that is being transformed.

13. In this particular case, claims 1-8 and 11-12 fail prong (1) because the “tie” (e.g. setting, starting, establishing, defining, detecting) is representative of extra-solution activity. Additionally, the claim(s) fail prong (2) because the method steps do not transform the underlying subject matter to a different state or thing.

### ***Claim Rejections - 35 USC § 112***

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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15. Claims 1-8 and 11-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

16. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Some of the examples include:

- Claims 1-8 and 11-12 recite “time charging”, i.e. for time charging, starting time charging, stopping time charging (see claims 1, 6, 7, 11, 12). The term, “time charging” is indefinite because the specification does not clearly redefine the term. For example, is "time charging" in the preamble of claim 1 indicates a charging for usage while "time charging" in step b) of claim 1 indicates the time itself.
- Claim 1 recites “b) starting time charging to the users by instruction of the access server to the users”. The limitation is unclear, relationship of the recited step and the components, e.g. users, instructions, access server.
- Claim 1 recites “recording data flow of the user in the access server” in step c). However, the claim recites “users” prior to the limitation. Hence it is unclear to which user the limitation is referring. Moreover, “user in the access server” is unclear.
- Claim 1 recites "d) defining a number of elements in the circular link list as a multiple of the outer time to the inner time in the access server". The

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- relationship of circular link list / outer time / (and/or) inner time to the access server is unclear.
- Claim 1 recites "d) detecting the data flow of the user according to the inner time in the access server". The relationship of detecting / data flow / user / (and/or) inner time to the access server is unclear.
  - Claim 1 recites "until a difference between data flow newly detected and the content rerecorded in the head pointer is not more than the flow threshold". The data flow newly detected is unclear. The content rerecorded in the head pointer is unclear.
  - Claim 1 recites "the broadband access server" in step a). The claim also recites "the access server" in the subsequent steps, e.g. step b). It is unclear whether "the access server" is referring to "the broadband access server".
  - Claim 2 recites "when the circular link list is not full". The claim limitation of circular link list is not full is unclear.
  - Claim 2 recites "meanwhile", which is narrative form.
  - The term "sooner after" in claim 1 is a relative term which renders the claim indefinite. The term "sooner after" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.
  - The claimed steps are missing essential steps, e.g. claims recites when conditions but fails to claim determination steps relating to conditions.

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- Step e) in claim 1 is indefinite in that the step recites "data flow newly detected and the content rerecorded" are unclear.
- Claims recite inner time and outer time. It is unclear what inner and outer time to one of ordinary skill in the art.

17. Above listing represents mere examples and do not represent comprehensive list of unclear limitations. The Applicant is advised to review the claims in its entirety for correction(s).

### ***Claim Rejections - 35 USC § 103***

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 1-8 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (supra) methods of the detecting IDLE state in such way that a timer is directly configured such that data flow of a user is detected periodically at each interval so as to decide whether an increment between the user's data flow and the last check point is less than a threshold and that if the increment is not greater than the threshold, the user is considered offline, otherwise the user is considered online or downloading. Further the Admitted Prior Art discloses where the time interval for IDLE detection is about 5 minutes. Moreover, the Admitted Prior Art discloses reducing of the time interval, i.e. from 5 minutes to less, for efficiency and better accuracy.

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20. Admitted Prior Art does not disclose using a circular link list to perform the above method. However, circular link list is old and well known programming technique.

Hence, it would have been obvious to one of ordinary skill in the art, e.g. one of ordinary skill in the art of computer and programming, to use various programming technique, including a circular link list which yield predictable results. "The claimed improvement is no more than simple substitution of one known element for another, or mere application of known technique to piece of prior art ready for improvement" - *Ex parte Smith*, 83 USPQ2d 1509 (Bd. Pat. App. & Int. 2007).

21. Furthermore, in regards to claims 2 and 3, the Applicant is directed to the use of conditional language. The recited "when" do not move to distinguish the claimed invention from the cited art. These phrases are conditional limitations with the noted "when" step not necessarily performed. Accordingly, once the positively recited steps are satisfied, the method as a whole is satisfied -- regardless of whether or not other steps are conditionally invoked under certain other hypothetical scenarios. (See: *In re Johnston*, 77 USPQ2d 1788 (CA FC 2006); *Intel Corp. v. Int'l Trade Comm'n*, 20 USPQ2d 1161 (Fed. Cir. 1991); MPEP §2106 II C).

### ***Conclusion***

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN KIM whose telephone number is (571)270-5287. The examiner can normally be reached on Monday - Thursday (7:30AM - 5:00PM).

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23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Calvin Hewitt can be reached on (571)272-6709. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. K./  
Examiner, Art Unit 3685

/Calvin L Hewitt II/  
Supervisory Patent Examiner, Art Unit 3685